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EXAMINER

JOO, JOSHUA

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/033,146	Applicant(s) CHEN ET AL.	
	Examiner JOSHUA JOO	Art Unit 2454	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-23, 25-34, 36-45, 47-55, 58 and 60-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-23, 25-34, 36-45, 47-55, 58 and 60-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/28/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

This Office action is in response to Applicant's communication filed on 08/27/2009.

Claims 1-3, 6-23, 25-34, 36-45, 47-55, 58, 60-69 are pending for examination.

Response to Arguments

Rejections of claims under 35 U.S.C. 112, second paragraph in the Office action dated 05/27/2009 is withdrawn in view of Applicant's amendment.

Applicant's arguments with respect to claims 1-3, 6-23, 25-34, 36-45, 47-55, 58, 60-69 have been considered but are moot in view of the new ground(s) of rejection. New ground(s) of rejection are necessitated by Applicant's amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 8-13, 16, 19-23, 25-30, 33-34, 36-41, 44-45, 47-52, 55, 58, 60-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pell, US Patent #7,392,540 (Pell hereinafter), in view of Fisher et al. US Patent #6,212,511 (Fisher hereinafter.)

As per claim 1, Pell teaches substantially the invention as claimed including a method for communicating comprising:

controlling a user interface presented by a web browser comprising:

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causing a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 5, lines 9-10. Browser. col. 7, lines 17-19. Receive request. col. 6, lines 47-50. Establish link between browsers. col. 9, lines 53-55. Send a support request to selected agent.),

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction.), and

the incoming event is received by a communication server (col. 5, lines 31-36. Collaboration server receives request.);

causing the web browser to provide a wait request to the web server wherein,

the wait request is associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent and initiate link with agent.);

identifying a source of the asynchronous message; associating the wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for

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the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 16, Pell teaches substantially the invention as claimed including a method for communicating comprising:

causing a web server to push an asynchronous message to a web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 5, lines 9-10. Agent browser. col. 7, lines 17-19. Receive request for support or services. col. 6, lines 47-50. Establish link between browsers. col. 9, lines 53-55. Send a support request to selected agent.),

the web browser performs an action in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction.), and

the incoming event is received by a communication server (col. 5, lines 31-36. Collaboration server receives request.);

causing the web browser to provide a wait request to the web server wherein, the wait request is associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent and initiate link with agent.);

identifying a source of the asynchronous message; and associating the wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.).

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Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 19, Pell teaches substantially the invention as claimed including a method for communication, comprising:

establishing a first connection between a web browser and a web server (col. 8, lines 36-46. An interface receives request from agent. "log in" procedure.);

establishing a second connection between the web server and a business process server (col. 5, lines 46-50. Initiate via path to permit interaction.);

controlling a user interface presented by the web browser comprising:

registering the web browser with the business process server (col. 8, lines 36-46. Request from agent. "log in" procedure with rendezvous service.);

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providing the web server with an asynchronous message to push to the web browser, the providing being performed by the business process server and the providing being performed in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 7, lines 17-19. Receive request for support or services. col. 6, lines 47-50. Establish link between browsers. col. 9, lines 53-55. Send a support request to selected agent.); and

causing the web server to push the asynchronous message to the browser; wherein the web browser performs a user interface change in response to the asynchronous message (col. 6, lines 47-50. Establish link between browsers. col. 5, lines 40-52. Initiate path with browser and permit interaction.); and

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

causing the web browser to provide a wait request to the web server, wherein the wait request is associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.);

identifying a source of the asynchronous message; and associating the wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous

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message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 20, Pell teaches substantially the invention as claimed including a method for communicating comprising:

controlling a user interface presented by a web browser comprising:

registering the web browser as available to receive an asynchronous message, wherein the web browser is not blocked waiting for the asynchronous message (col. 5, lines 40-45. Request to identify agent as available. col. 8, lines 36-46. Request from agent. "log in" procedure.); and

causing a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 5, lines 9-10. Agent browser. col. 7, lines 17-19. Receive request for support or services. col. 6, lines 47-50. Establish link between browsers. col. 9, lines 53-55. Send a support request to selected agent.)

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction.), and

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

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causing the web browser to provide a wait request to the web server wherein, the wait request is associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. “log in” procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.);

identifying a source of the asynchronous message; and associating the wait request with the source wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher’s teachings would improve Pell’s teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 21, Pell teaches substantially the invention as claimed including a method for communicating, comprising:

controlling a user interface presented by a web browser comprising:

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causing the web browser to provide a wait request to a web server, the wait request being associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. “log in” procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.);

identifying a source of an asynchronous message; associating the wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent. col. 9, lines 53-55. Send a support request to selected agent.).

pushing the asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.), and

the browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction.);

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

identifying a source of an asynchronous message; associating the wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent. col. 9, lines 53-55. Send a support request to selected agent.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

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Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 22, Pell teaches substantially the invention as claimed including a method for communicating, comprising:

- controlling a user interface presented by a web browser comprising:

- causing the web browser to provide a wait request to a web server, wherein the wait request is associated with the web browser and a target from which an asynchronous message originates, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent. col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.);

- generating the asynchronous message, the asynchronous message identifying the web browser as a recipient of the asynchronous message, the generating being performed by the target (col. 9, lines 53-55. Send a support request to selected agent.);

- providing the asynchronous message to the web server (col. 5, lines 46-50. Initiate via path to permit interaction); and causing the web server to push the asynchronous message to the web browser in

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response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.),

the web browser presents a user interface change in response to the asynchronous message; and the incoming event is received by a communication server (col. 5, lines 40-52. Initiate path with browser and permit interaction.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 23, Pell teaches substantially the invention as claimed including a computer program product comprising:

controlling instructions to control a user interface presented by a web browser comprising:

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pushing instructions to cause a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.),

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction.), and

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

providing instructions to cause the web browser to provide a wait request to the web server, the wait request being associated with the web browser and the wait request enable the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.);

identifying instructions to identify a source of the asynchronous message; and associating instructions to associate the wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent. col. 9, lines 53-55. Send a support request to selected agent.); and

a computer-readable medium for storing the controlling instructions, the pushing instructions, the providing instructions, the identifying instructions, and the associating instructions (fig. 8; col. 4, lines 55-67; col. 5, lines 4-15. Physical server system comprising data for initiating communications.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

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Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 33, Pell teaches substantially the invention as claimed including a computer program product comprising:

controlling a user interface presented by a web browser comprising:

registering the web browser as available to receive an asynchronous message, wherein the web browser is not blocked waiting for the asynchronous message (col. 5, lines 40-45. Request to identify agent as available. col. 8, lines 36-46. Request from agent. "log in" procedure.); and

causing a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 5, lines 9-10. Agent browser. col. 7, lines 17-19. Receive request for support or services. col. 6, lines 47-50. Establish link between browsers. col. 9, lines 53-55. Send a support request to selected agent.)

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction.), and

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the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

causing the web browser to provide a wait request to the web server wherein, the wait request is associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.);

identifying a source of the asynchronous message; associating the wait request with the source wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.); and

a computer-readable medium for storing the controlling instructions, the registering instructions, the pushing instructions, the providing instructions, the identifying instructions, and the associating instructions. (fig. 8; col. 4, lines 55-67; col. 5, lines 4-15. Physical server system comprising data for initiating communications.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that

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Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 34, Pell teaches substantially the invention as claimed including a computer system comprising:

a processor; a memory, the memory storing instructions for executing on the processor, the instructions comprising (fig. 8; col. 4, lines 55-67; col. 5, lines 4-15. Physical server system comprising data for initiating communications.):

controlling instructions to control a user interface presented by a web browser comprising:

pushing instructions to cause a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user, the web browser presents a user interface change in response to the asynchronous message (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.), and

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

providing instructions to cause the web browser to provide a wait request to the web server, the wait request being associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.);

identify instructions to identify a source of the asynchronous message; and associating instructions to associate the wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent. col. 9, lines 53-55. Send a support request to selected agent.).

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Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 44, Pell teaches substantially the invention as claimed including a computer system, comprising:

a processor; a memory, the memory storing instructions for executing on the processor, the instructions comprising (fig. 8; col. 4, lines 55-67; col. 5, lines 4-15. Physical server system comprising data for initiating communications.):

controlling instructions to control a user interface presented by a web browser comprising:

registering the web browser as available to receive an asynchronous message, wherein the web browser is not blocked waiting for the asynchronous message (col. 5, lines 40-45. Request to identify agent as available. col. 8, lines 36-46. Request from agent. "log in" procedure.); and

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causing a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 5, lines 9-10. Agent browser. col. 7, lines 17-19. Receive request for support or services. col. 6, lines 47-50. Establish link between browsers. col. 9, lines 53-55. Send a support request to selected agent.);

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction.), and

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

causing the web browser to provide a wait request to the web server wherein, the wait request is associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.);

identifying a source of the asynchronous message; and associating the wait request with the source wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 45, Pell teaches substantially the invention as claimed including a system for communicating comprising:

a client computer comprising: a web browser, wherein the web browser presents a user interface (col. 4, lines 29-35. Browser. col. 6, lines 48. Computer.);

a server computer coupled to the client computer (fig. 8; col. 4, lines 55-67; col. 5, lines 4-15. Physical server system comprising data for initiating communications.), wherein the server computer comprises

controlling means for controlling the user interface presented by the web browser,

pushing means for causing a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.),

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction. col. 9, lines 53-55. Receive request.), and

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

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identifying means for identifying a source of the asynchronous message, and associating means for associating a wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message, and (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent. col. 9, lines 53-55. Send a support request to selected agent.)

the client computer comprises providing means for causing the web browser to provide the wait request to the web server wherein, the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. “log in” procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher’s teachings would improve Pell’s teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 55, Pell teaches the invention as claimed including a system comprising:

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a client computer comprising: a web browser (col. 4, lines 29-35. Browser. col. 6, lines 48. Computer.), wherein the web browser presents a user interface;

a server computer coupled to the client computer (fig. 8; col. 4, lines 55-67; col. 5, lines 4-15. Physical server system comprising data for initiating communications.), wherein the server computer comprises:

controlling means for controlling a user interface presented by a web browser comprising:

registering means for registering the web browser as available to receive an asynchronous message, wherein the web browser is not blocked waiting for the asynchronous message (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.); and

pushing means for causing a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish communication with a user (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.),

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction. col. 9, lines 53-55. Receive request.), and

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

identifying means for identifying a source of the asynchronous message, associating means for associating a wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent. col. 9, lines 53-55. Send a support request to selected agent.);

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the client computer comprises providing means for causing the web browser to provide the wait request to the web server wherein, the wait request is associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 58, Pell teaches substantially the invention as claimed including a system for communicating comprising:

controlling module to control a user interface presented by a web browser comprising:

a pushing module to cause a web server to push an asynchronous message to the web browser in response to an incoming event, wherein the incoming event comprises a request to establish

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communication with a user (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.),

the web browser presents a user interface change in response to the asynchronous message (col. 5, lines 40-52. Initiate path with browser and permit interaction. col. 9, lines 53-55. Receive request.), and

the incoming event is received by a communication server (col. 5, lines 21-26. Proxy receives request. col. 5, lines 32-35. Rendezvous service also receives request.);

a request providing module to cause the web browser to provide a wait request to the web server wherein, the wait request is associated with the web browser, and the wait request enables the web server to push the asynchronous message to the web browser (col. 8, lines 36-46. Request from agent. "log in" procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.);

an identifying module to identify a source of the asynchronous message; and an associating module to associate the wait request with the source, wherein the associating identifies web browser as a recipient of the asynchronous message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent. col. 9, lines 53-55. Send a support request to selected agent.); and

a computer-readable storage medium configured to store the controlling module, the pushing module, the request providing module, the identifying module, identifying module, and the associating module (fig. 8; col. 4, lines 55-67; col. 5, lines 4-15. Physical server system comprising data for initiating communications.).

Pell does not specifically teach that the wait request specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process.

Fisher teaches of a request that specifies a target process of a plurality of processes, and the processes are configured to generate asynchronous messages, wherein the source of the asynchronous

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message is the target process (col. 4, lines 43-48; col. 5, lines 18-22, 46-50; col. 14, lines 25-36; col. 15, lines 1-11, 21-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the wait request to specify a target process of a plurality of processes, and for the processes to be configured to generate asynchronous messages, wherein the source of the asynchronous message is the target process. The motivation for the suggested combination is that Fisher's teachings would improve Pell's teachings by enabling users to register for event notifications from specified sources while limiting the event notifications to authorized users.

As per claim 2, Pell teaches the method of claim 1 further comprising: generating the asynchronous message (col. 9, lines 53-55. Send a support request to selected agent. col. 5, lines 40-52. Initiate path with browser and permit interaction.).

As per claim 3, Pell teaches the method of claim 1 further comprising: preparing to receive the asynchronous message (col. 6, lines 47-50. Establish link between browsers. col. 9, lines 53-55. Send a support request to selected agent. col. 5, lines 40-52. Initiate path with browser and permit interaction. The agent browser thus receives the request.).

As per claim 6, Pell teaches the invention comprising: generating instructions to generate the asynchronous message, the asynchronous message identifying the wait request, wherein the identifying identifies the web browser as a recipient of the message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent. col. 9, lines 53-55. Send a support request to selected agent.); and message providing instructions to provide the asynchronous message to the web server (col. 5, lines 46-50. Initiate via path to permit interaction).

As per claim 8, Pell teaches the invention of claim 6 further comprising: storing a reference to a callback function with information from the wait request (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available.); and using the reference to call the callback function when the message is provided to the web server, wherein the callback function pushes the message (col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 9, Pell teaches the invention of claim 8 comprising: providing the callback function with context information, the context information identifying the web browser (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 4, lines 43-54. Interaction using browser. col. 6, lines 47-50. Establish link between browsers.).

As per claim 10, Pell teaches the invention of claim 6 comprising: assigning instructions to assign the wait request to a connection between the web server and a business process server; and listening instructions to listen to the connection for the message (col. 5, lines 46-50. Initiate via path to permit interaction. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 11, Pell teaches the invention of claim 6 comprising: assigning instructions to assign the wait request to a session between the web server and a business process server, the session being associated with a connection; and listening instructions to listen to the connection for the message (col. 5, lines 46-50. Initiate via path to permit interaction. col. 9, lines 53-55. Send a support request to selected agent.).

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As per claim 12, Pell teaches the invention of claim 1 comprising: calling a callback function associated with the web browser when the message is received, wherein the callback function pushes the message (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 13, Pell teaches the invention of claim 12 comprising: storing a reference to the callback function and using the reference for calling the callback function (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.);

As per claim 25, Pell teaches the invention of claim 23 comprising: requesting providing instructions to cause the web browser to provide a wait request to the web server, the wait request being associated with the web browser (col. 8, lines 36-46. Request from agent. “log in” procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.); generating instructions to generate the asynchronous message, the asynchronous message identifying the wait request, wherein the identifying identifies the web browser as a recipient of the message; and message providing instructions to provide the asynchronous message to the web server (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 26, Pell teaches the invention of claim 25 further comprising: storing instructions to store a reference to a callback function with information from the wait request (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available.); and using instructions to use the reference to call the callback function when the message is provided to the web server, wherein the callback

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function pushes the message; wherein the computer-readable medium further stores the storing instructions and the using instructions (col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 27, Pell teaches the invention of claim 26 comprising: context providing instructions to provide the callback function with context information, the context information identifying the web browser; wherein the computer-readable medium further stores the context providing instructions (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 4, lines 43-54. Interaction/communication using browser. col. 6, lines 47-50. Establish link between browsers.).

As per claim 28, Pell teaches the invention of claim 25 comprising: assigning instructions to assign the wait request to a connection between the web server and a business process server; and listening instructions to listen to the connection for the message; wherein the computer-readable medium further stores the assigning instructions and the listening instructions (col. 5, lines 46-50. Initiate via path to permit interaction. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 29, Pell teaches the invention of claim 23 comprising: calling a callback function associated with the web browser when the message is received, wherein the callback function pushes the message (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 30, Pell teaches the invention of claim 29 comprising: reference storing instructions to store a reference to the callback function and reference using instructions to use the reference for calling the callback function (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent

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as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.);

As per claim 36, Pell teaches the invention claim 34 comprising: requesting providing instructions to cause the web browser to provide a wait request to the web server, the wait request being associated with the web browser (col. 8, lines 36-46. Request from agent. “log in” procedure. col. 5, lines 40-52; col. 7, lines 26-30. Identify available agent.); generating instructions to generate the asynchronous message, the asynchronous message identifying the wait request, wherein the identifying identifies the web browser as a recipient of the message; and message providing instructions to provide the asynchronous message to the web server (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 37, Pell teaches the invention of claim 36 comprising: storing instructions to store a reference to a callback function with information from the wait request (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available.); and using instructions to use the reference to call the callback function when the message is provided to the web server, wherein the callback function pushes the message (col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 38, Pell teaches the invention of claim 37 comprising: context providing instructions to provide the callback function with context information, the context information identifying the web browser (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col 4, lines 43-54. Interaction/communication using browser. col. 6, lines 47-50. Establish link between browsers.).

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As per claim 39, Pell teaches the invention of claim 36 comprising: assigning instructions to assign the wait request to a connection between the web server and a business process server; and listening instructions to listen to the connection for the message (col. 5, lines 46-50. Initiate via path to permit interaction. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 40, Pell teaches the invention of claim 34 comprising: calling instructions to call a callback function associated with the web browser when the message is received, wherein the callback function pushes the message (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 41, Pell teaches the invention of claim 40 comprising: reference storing instructions to store a reference to the callback function and reference using instructions to use the reference for calling the callback function (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.);

As per claim 47, Pell teaches the system of claim 45, the server computer, further comprising: generating means for generating the asynchronous message, the asynchronous message identifying the wait request, wherein the identifying identifies the web browser as a recipient of the message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.); and message providing means for providing the asynchronous message to the web server (col. 9, lines 53-55. Send a support request to selected agent col. 5, lines 46-50. Initiate via path to permit interaction).

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As per claim 48, Pell teaches the system of claim 47, the server computer further comprising: storing means for storing a reference to a callback function with information from the wait request (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available.); and using means for using the reference to call the callback function when the message is provided to the web server, wherein the callback function pushes the message (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent. col. 5, lines 46-50. Initiate via path to permit interaction.).

As per claim 49, Pell teaches the system of claim 48, the client computer further comprising: context providing means for providing the callback function with context information, the context information identifying the web browser (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available.).

As per claim 50, Pell teaches the system of claim 47, the server computer comprising: assigning means for assigning the wait request to a connection between the web server and a business process server; and listening means for listening to the connection for the message (col. 5, lines 46-50. Initiate via path to permit interaction. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 51, Pell teaches the system of claim 45, wherein the pushing means comprise: calling means for calling a callback function associated with the web browser when the message is received, wherein the callback function pushes the message (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.).

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As per claim 52, Pell teaches the system of claim 51, the server computer comprising: reference storing means for storing a reference to the callback function and reference using means for using the reference for calling the callback function (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.);

As per claim 60, Pell teaches the system of claim 58, further comprising: a generating means to generate the asynchronous message, the asynchronous message identifying the wait request, wherein the identifying identifies the web browser as a recipient of the message (col. 5, lines 35-37, col. 8, lines 50-54, 63-67. Match particular customer to a particular agent.); and a message providing module to provide the asynchronous message to the web server, wherein the computer readable storage medium is configured to store the generating module and message providing module (col. 9, lines 53-55. Send a support request to selected agent col. 5, lines 46-50. Initiate via path to permit interaction).

As per claim 61, Pell teaches the system of claim 60, further comprising: a storing module to store a reference to a callback function with information from the wait request (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available.); and a using module to use the reference to call the callback function when the message is provided to the web server, wherein the callback function pushes the message, wherein the computer readable storage medium is configured to store the storing module and using module (col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent. col. 5, lines 46-50. Initiate via path to permit interaction.).

As per claim 62, Pell teaches the system of claim 61, further comprising: a context providing module to provide the callback function with context information, the context information identifying the

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web browser, wherein the computer readable storage medium is configured to store the context providing module (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available.).

As per claim 63, Pell teaches the system of claim 60, further comprising: an assigning module to assign the wait request to a connection between the web server and a business process server (); and listening module to listen to the connection for the message, wherein the computer readable storage medium is configured to store the assigning module and listening module (col. 5, lines 46-50. Initiate via path to permit interaction. col. 9, lines 53-55. Send a support request to selected agent.).

As per claim 64, Pell teaches the system of claim 58 wherein the pushing means comprise: a calling module to call a callback function associated with the web browser when the message is received, wherein the callback function pushes the message, wherein the computer readable storage medium is configured to store the calling module (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent).

As per claim 65, Pell teaches the system of claim 64, further comprising: a reference storing module to store a reference to the callback function and a reference using module to use the reference for calling the callback function, wherein the computer readable storage medium is configured to store the reference storing module and the reference using module (col. 5, lines 40-45. Log in with request. col. 8, lines 43-49. Record agent as available. col. 7, lines 17-19. Receive request for support or services. col. 9, lines 53-55. Send a support request to selected agent.).

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Claims 7, 14-15, 18, 31-32, 42-43, 53-54, 66-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pell and Fisher, in view of Gupta et al, US Patent #6,763,384 (Gupta hereinafter).

As per claim 7, Pell does not specifically teach the method of claim 6, wherein causing the web browser to provide the wait request comprises: downloading requesting instructions to the web browser, wherein downloading causes the web browser to execute the requesting instructions.

Gupta teaches an invention comprising of causing a browser to provide a wait request, wherein causing the web browser to provide the wait request comprises: downloading requesting instructions to the web browser, wherein downloading causes the web browser to execute the requesting instructions (col. 5, lines 60-col. 6, lines 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to download requesting instructions to the web browser, wherein downloading causes the web browser to execute the requesting instructions. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by providing a client with necessary software to interact with a server. Furthermore, Gupta's teachings would also provide an improvement by efficiently utilizing resources on the network (col. 12, lines 20-24).

As per claim 14, Pell does not specifically teach the invention of claim 12 comprising: storing a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function.

Gupta teaches an invention for providing notifications comprising of storing a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function (col. 5, lines 54-

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56. Identifier could be address and port with the protocol. col. 8, lines 34-40. Send events/messages received from application server using receiving identifier of client.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to store a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by providing specific information to enable communication with a client. Furthermore, Gupta's teachings would also provide an improvement by efficiently utilizing resources on the network (col. 12, lines 20-24).

As per claim 15, Pell does not specifically teach the invention of claim 1 wherein the change in the user interface comprises at least one of a group consisting of the following: causing a first user interface object to move to visually capture a user's attention; causing a second user interface object to issue a sound to capture the user's attention; presenting a screen pop of data; and bringing a web browser window to the front of a screen

Gupta teaches of receiving a message that causes a change in a user interface comprising causing a first user interface object to move to visually capture a user's attention (col. 6, lines 59-61. On-line client displays the messages to the end user.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to cause a first user interface object to move to visually capture a user's attention. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by enabling an agent to be aware of incoming support requests.

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As per claim 18, Pell does not specifically teach the invention wherein the change in the user interface comprises at least one of a group consisting of the following: causing a first user interface object to move to visually capture a user's attention; causing a second user interface object to issue a sound to capture the user's attention; presenting a screen pop of data; and bringing a web browser window to the front of a screen

Gupta teaches of receiving a message that causes a change in a user interface comprising causing a first user interface object to move to visually capture a user's attention (col. 6, lines 59-61. On-line client displays the messages to the end user.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to cause a first user interface object to move to visually capture a user's attention. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by enabling an agent to be aware of incoming support requests.

As per claim 31, Pell does not specifically teach the invention of claim 30 comprising: context storing instruction to store a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function, wherein the computer-readable medium further stores the context storing instructions and the context using instructions.

Gupta teaches an invention for providing notifications comprising of storing a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function (col. 5, lines 54-56. Identifier could be address and port with the protocol. col. 8, lines 34-40. Send events/messages received from application server using receiving identifier of client.).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to store a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by providing specific information to enable communication with a client. Furthermore, Gupta's teachings would also provide an improvement by efficiently utilizing resources on the network (col. 12, lines 20-24).

As per claim 32, Pell does not specifically teach the invention wherein the change in the user interface comprises at least one of a group consisting of the following: causing a first user interface object to move to visually capture a user's attention; causing a second user interface object to issue a sound to capture the user's attention; presenting a screen pop of data; and bringing a web browser window to the front of a screen

Gupta teaches of receiving a message that causes a change in a user interface comprising causing a first user interface object to move to visually capture a user's attention (col. 6, lines 59-61. On-line client displays the messages to the end user.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to cause a first user interface object to move to visually capture a user's attention. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by enabling an agent to be aware of incoming support requests.

As per claim 42, Pell does not specifically teach the invention of claim 41 comprising: context storing instruction to store a second reference to context information, the context information identifying

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the web browser and context using instructions to use the second reference for providing the context information to the callback function.

Gupta teaches an invention for providing notifications comprising of storing a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function (col. 5, lines 54-56. Identifier could be address and port with the protocol. col. 8, lines 34-40. Send events/messages received from application server using receiving identifier of client.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to store a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by providing specific information to enable communication with a client. Furthermore, Gupta's teachings would also provide an improvement by efficiently utilizing resources on the network (col. 12, lines 20-24).

As per claim 43, Pell does not specifically teach the invention wherein the change in the user interface comprises at least one of a group consisting of the following: causing a first user interface object to move to visually capture a user's attention; causing a second user interface object to issue a sound to capture the user's attention; presenting a screen pop of data; and bringing a web browser window to the front of a screen

Gupta teaches of receiving a message that causes a change in a user interface comprising causing a first user interface object to move to visually capture a user's attention (col. 6, lines 59-61. On-line client displays the messages to the end user.).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to cause a first user interface object to move to visually capture a user's attention. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by enabling an agent to be aware of incoming support requests.

As per claim 53, Pell does not specifically teach the system of claim 52, the server computer further comprising: context storing means for storing a second reference to context information, the context information identifying the web browser and context using means for using the second reference for providing the context information to the callback function.

Gupta teaches an invention for providing notifications comprising of storing a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function (col. 5, lines 54-56. Identifier could be address and port with the protocol. col. 8, lines 34-40. Send events/messages received from application server using receiving identifier of client.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to store a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by providing specific information to enable communication with a client. Furthermore, Gupta's teachings would also provide an improvement by efficiently utilizing resources on the network (col. 12, lines 20-24).

As per claim 54, Pell does not specifically teach the system of claim 45, the client computer further comprising: the user interface changing means configured to perform at least one of a group

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consisting of the following: causing a first user interface object to move to visually capture a user's attention; causing a second user interface object to issue a sound to capture the user's attention; presenting a screen pop of data; and bringing a web browser window to the front of a screen.

Gupta teaches of receiving a message that causes a change in a user interface comprising causing a first user interface object to move to visually capture a user's attention (col. 6, lines 59-61. On-line client displays the messages to the end user.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to cause a first user interface object to move to visually capture a user's attention. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by enabling an agent to be aware of incoming support requests.

As per claim 66, Pell does not specifically teaches the system of claim 65, further comprising: a context storing module to store a second reference to context information, the context information identifying the web browser and a context using module to use the second reference for providing the context information to the callback function, wherein the computer readable storage medium is configured to store the context storing module and the context using module.

Gupta teaches an invention for providing notifications comprising of storing a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the context information to the callback function (col. 5, lines 54-56. Identifier could be address and port with the protocol. col. 8, lines 34-40. Send events/messages received from application server using receiving identifier of client.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to store a second reference to context information, the context information identifying the web browser and context using instructions to use the second reference for providing the

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context information to the callback function. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by providing specific information to enable communication with a client. Furthermore, Gupta's teachings would also provide an improvement by efficiently utilizing resources on the network (col. 12, lines 20-24).

As per claim 67, Pell does not specifically teach the system of claim 58, further comprising: a user interface changing module configured to perform at least one of a group consisting of the following: causing a first user interface object to move to visually capture a user's attention; causing a second user interface object to issue a sound to capture the user's attention; presenting a screen pop of data; and bringing a web browser window to the front of a screen, wherein the computer readable storage medium is configured to store the user interface changing module.

Gupta teaches of receiving a message that causes a change in a user interface comprising causing a first user interface object to move to visually capture a user's attention (col. 6, lines 59-61. On-line client displays the messages to the end user.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to cause a first user interface object to move to visually capture a user's attention. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by enabling an agent to be aware of incoming support requests.

As per claim 68, Pell teaches the method of claim 1 further comprising: opening a persistent hypertext transfer protocol (HTTP) connection between the web browser and the web server when a user logs in (col. 8, lines 43-49. Record agent as available. col. 6, lines 17-25. HTTP.). Pell does not specifically teach of closing the persistent HTTP connection between the web browser and the web server in response to the web server pushing the asynchronous message to the web browser.

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Gupta teaches of closing the persistent HTTP connection between the web browser and the web server in response to the web server pushing the asynchronous message to the web browser (col. 7, lines 10-14. Closes the connection after sending the notification.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to close the persistent HTTP connection between the web browser and the web server in response to the web server pushing the asynchronous message to the web browser. The motivation for the suggested combination is that Gupta's teachings would improve the suggested system by reducing resource usage thus efficiently utilizing resources on the network (col. 12, lines 20-24).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pell and Fisher, in view of Wick, US Patent #6,691,162 (Wick hereinafter).

As per claim 17, Pell does not specifically teach the method of claim 16, wherein the message includes an action instruction to cause the web browser to perform the action

Wick teaches of sending a message that includes an action instruction to cause an interface to perform the action (col. 3, lines 36-40; fig. 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the message to include an action instruction to cause a user interface to perform the action. The motivation for the suggested combination is that Wick's teachings would improve the suggested system by increasing the likelihood that the agent is made aware of an incoming request for support.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pell and Fisher, in view of Abbott et al. US Patent #7,089,497 (Abbott hereinafter).

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As per claim 69, Pell does not specifically teach the method of claim 1 further comprising: storing the wait request in memory (col. 8, lines 35-49) and pushing the asynchronous message but not removing the wait request from memory in response to pushing the asynchronous message.

Abbott teaches of removing a request in response to sending a notification (col. 17, lines 27-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to remove the wait request from memory in response to pushing the asynchronous message. The motivation for the suggested combination is that Abbott's teachings would improve the suggested system by freeing memory as a result of removing completed requests and preventing duplicate processing of requests.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Friday 7 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J. J./
Examiner, Art Unit 2454

/NATHAN FLYNN/
Supervisory Patent Examiner, Art Unit 2454